

CHEMICAL MILLING OF GAS TURBINE ENGINE BLISKS

ABSTRACT OF THE DISCLOSURE

[0038] A method for chemical milling of a gas turbine engine blisk having a hub and a plurality of blades made of metal for the purpose of changing the dimensional characteristics (i.e., chord and/or thickness) of one or more of these blades. At least one blade of the blisk is treated with a chemical etchant of the metal that the blade is made of for a period of time sufficient to change at least one of the chord and thickness of the blade(s). In a preferred aspect of this method, at least one of the blades of a rotationally imbalanced blisk is treated with the chemical etchant for a period of time sufficient to change the chord and/or thickness of these blades so that the blisk is rotationally balanced. In another preferred aspect of this method, an assessment of where and the degree to which the rotational imbalance exists in the blisk is made to determine which blades are to be treated with the chemical etchant and how those blades are to be treated to achieve rotational balance of the blisk.